The Economic Impact Of Travel on Massachusetts Counties 2018

A Study Prepared for the
Massachusetts Office of Travel and Tourism
By the Research Department of the
U.S. Travel Association
Washington, D.C.
October 2018

PREFACE

This study was conducted by the research department of the U.S. Travel Association for the *Massachusetts Office of Travel and Tourism*. The study presents estimates of travel economic impact on Massachusetts in 2018 at the state and county levels. Estimates include travel expenditures, travel-generated employment and payroll income, as well as tax revenues for state and local governments. Direct domestic travel impacts are provided for the state and the 14 counties, while the international travelers' impact and the multiplier impact on Massachusetts are provided at the state level only. For the purpose of comparison, historical impact data are displayed in this report.

U.S. Travel Association
Washington, D.C.
October 2018

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

The study presents estimates of travel's economic impact on Massachusetts in 2018 at the state and county levels. Estimates include travel expenditures, travel-generated employment and payroll income, as well as tax revenues for state and local governments. Direct domestic travel impacts are provided for the state and the 14 counties. Additionally, international travelers' impact and the multiplier impact on Massachusetts are provided at the state level only. For the purpose of comparison, historical impact data is displayed in this report.

All estimates of the economic impact of travel contained in this report are the product of the U.S. Travel Association's Travel Economic Impact Model (TEIM), a proprietary economic model developed expressly to indicate the expenditures, employment, payroll and tax revenue generated by travel away from home in the United States.

TEIM was created to capture the highly complex nature of the U.S. travel industry at national, regional, state and local levels. The TEIM was designed so that economic impact estimates could be compared across all 50 states and the District of Columbia, thereby allowing states and localities to assess their market share nationally, regionally or within the state.

The domestic component of TEIM is based on national surveys conducted by U.S. Travel and other travel-related data developed by U.S. Travel, various government agencies and well-known travel organizations each year. A summary of the methodology is provided in Appendix A.

The international travel expenditure estimates are based on the Office of Travel and Tourism Industries' (OTTI) Survey of International Air Travelers to the U.S. and data provided to OTTI from Canada and Mexico. Other estimates of the economic impact of international visitors to the U.S. are generated through TEIM by incorporating the estimated international travelers' expenditures with the data series utilized to produce the domestic estimates.

U.S. residents traveling in Massachusetts includes both state residents and out-of-state visitors traveling away from home overnight in paid accommodations, or on day or overnight trips to places 50 miles or more away from home. Travel commuting to and from work; travel by those operating an airplane, bus, truck, train or other forms of common carrier transportation; military travel on active duty; and travel by students away at school are all excluded from this model. In addition, the payroll and employment estimates represent impact generated in the private sector and exclude government payroll and employment.

Since additional data relating to travel and its economic impact in 2018 will become available subsequent to this study, U.S. Travel reserves the right to revise these estimates in the future.

EXECUTIVE SUMMARY

Total Impact of Travel

- In 2018, total domestic and international travel output in Massachusetts, including direct, indirect and induced output, amounted to $37.8 billion, up 5.4 percent from 2017.

- Domestic and international travel supported a total of 244,700 jobs for the travel industry and other industry sectors in Massachusetts during 2018, a 2.6 percent increase from 2017.

- Employees supported directly and indirectly by travel in Massachusetts earned a total of $10.4 billion in 2018, up 5.5 percent from 2017.

Direct Impact of Travel

- Domestic and international travelers directly spent $24.2 billion in Massachusetts during 2018, up 5.6 percent from 2017. Domestic traveler spending increased 6.0 percent, while international traveler spending increased 3.7 percent.

- Payroll income generated by direct traveler spending in Massachusetts totaled $5.6 billion during 2018, up 5.4 percent from 2017.

- Travel expenditures directly supported 153,200 jobs within Massachusetts in 2018, up 2.5 percent from 2017. Travel-generated jobs in Massachusetts comprised 4.2 percent of the total nonfarm employment in the state during 2018.

- On average, every $157,724 spent in Massachusetts by domestic and international travelers generated one job in 2018.

- Traveler spending in Massachusetts directly generated $3.7 billion in tax revenue for federal, state and local governments in 2018, up 5.1 percent from 2017.

- Suffolk County, which includes the city of Boston, received nearly $9.8 billion in domestic travel expenditures, leading Massachusetts counties for 2018.

NATIONAL SUMMARY 2018

The U.S. economy came alive in 2018, the ninth year of economic expansion since the Great Recession of 2007-2009. Real GDP increased at 2.9 percent, the fastest annual growth rate in an economic expansion marked by annual economic growth between one and two percent. On top of robust consumer spending and solid business investment, the economy in 2018 also relied on a labor market performing at historic levels, with nonfarm payrolls at all-time highs and the unemployment rate near the lowest mark in 50 years. However, trade tensions, firming inflation, and sluggish real (inflation-adjusted) wage growth remain headwinds for the economy moving forward.

Consumer spending, which accounts for over two-thirds of the U.S. economy, headlined 2018 economic growth, contributing to nearly two-thirds (1.8 percentage points) of the 2.9 percent real GDP growth rate. As usual, over half of this new spending was toward services (which includes the travel industry). Business investment, inspired by renewed business confidence, contributed over one percentage point to 2018 economic growth, the largest contribution in business investment since 2012. U.S. businesses also contributed to a 4% growth in exports in 2018, growth that was cancelled out by a 4.5 percent increase in imports. Exports had an uncommonly volatile year, with fears of increased tariffs between the U.S. and China, our largest trading partner, leading to large seasonal fluctuations in international trade volumes.

The labor market continued to outperform expectations in 2018, with the national job count of nonfarm payrolls eclipsing 150 million by mid-year. While employment increased by 2.5 million, unemployment fell by nearly 670,000 jobs, bringing the 2018 annual unemployment rate to 3.9 percent, the lowest annual average unemployment rate since 1969. Travel has made a great contribution to the labor market. In 2018, travel generated 8.9 million jobs for the tourism industry. Without the 8.9 million jobs generated by the travel and tourism, that unemployment rate would have been 5.5 percentage points greater (9.4%).

Wages also increased in 2018. Average hourly wages for non-supervisory employees increased by just under 3 percent in 2018, the fastest annual growth since 2010. The 3% increase in wages meant that wages outpaced inflation in consumer prices in 2018.

Consumer Price Index (CPI) and Travel Price Index (TPI) experienced 2.4 percent and 2.5 percent annual average increases, respectively. Core CPI, which excludes food and energy items, remained relatively stable with a 2.1 percent increase in 2018.

Table 1: Overall U.S. Economic Indicators, 2016-2018

Sector	2016	2017	2018
Nominal gross domestic product ($Billions)	18,715.0	19,519.4	20,580.2
Real gross domestic product ($Billions) *	17,688.9	18,108.1	18,638.2
Real disposable personal income ($Billions) *	13,608.4	14,002.8	14,556.2
Real personal consumption expenditures ($Billions) *	12,247.5	12,566.9	12,944.6
Consumer Price Index**	240.0	245.1	251.1
Travel Price Index	273.1	279.4	286.5
Nonfarm payroll employment (Millions)	144.4	146.6	149.1
Unemployment rate (%)	4.9	4.4	3.9
Percentage change from previous year			
Nominal gross domestic product	2.7%	4.0%	5.4%
Real gross domestic product	1.6%	2.4%	2.9%
Real disposable personal income	1.8%	2.9%	4.0%
Real personal consumption expenditures	2.7%	2.6%	3.0%
Consumer Price Index	1.3%	2.1%	2.4%
Travel Price Index	0.3%	2.3%	2.5%
Nonfarm payroll employment	1.8%	1.6%	1.7%

Source: BEA, BLS, U.S. Travel Association
** In chained 2012 dollars*
*** 1982-84=100*

U.S. Travel Volume in 2018

U.S. domestic travel, including leisure and business travel, increased 1.9 percent to a total of 2.3 billion person-trips in 2018. A person-trip is defined as one person on a trip away from home overnight in paid accommodations, or on a day or overnight trip to places 50 miles or more, one-way, away from home.

Domestic leisure travel, which includes visits to friends and relatives as well as trips taken for entertainment and recreation purposes, increased 2.0 percent in 2018 to over 1.8 billion person-trips, even with the growth rate achieved in 2017. U.S. leisure travel accounted for 80 percent of all U.S. domestic travel in 2018. Leisure person-trips are expected to increase by 1.8 percent in 2019, according the U.S. Travel Association.

Domestic business person-trips increased 1.6 percent to 464 million in 2018. Business travel is expected to continue its recovery from the 2016 contraction, increasing 1.5 percent in 2019.

International arrivals to the U.S. increased 3.5 percent to 79.6 million in 2018. Overseas visitor arrivals to the U.S. (from all countries except Canada and Mexico) reached 39.9 million in 2018

and accounted for 50.6 percent of all international arrivals to the United States. Canadian arrivals to the U.S increased by 4.9 percent in 2018 and reached 21.2 million. Mexican arrivals increased by 3.9 percent to 18.5 million in 2018.

Travel Expenditures in 2018

Domestic and international travelers spent nearly $1.1 trillion in the U.S. in 2018, increased 4.9 percent (not inflation adjusted) from 2017, the fastest annual growth rate in travel spending since 2014. Travel spending is expected to grow in the next four years. U.S. Travel Association expects travel spending will increase by 2.7 percent in 2019.

Domestic travel spending in 2018 increased by 5.8 percent to nearly $933 billion while international travel spending did not rebound as expected in 2018, remaining virtually flat at $156 billion. Domestic and International traveler expenditures are expected to grow 2.9 percent and 1.7 percent in 2019, respectively.

International traveler spending excludes international airfare payments to U.S. airlines, as well as international visitors' expenditures on long-term education, health care, and spending by cross border day-trip visitors and seasonal workers. In 2018, international airfare receipts totaled $41 billion, increasing 1 percent from 2017. Only $10.3 billion in international airfare receipts were collected in the first quarter of 2019, a decrease of 0.6 percent against the first quarter of 2018.

Accounting for 70 percent of all travel spending, leisure traveler spending totaled $762 billion in 2018, 6.1 percent increase from 2017. Business traveler spending increased by 2.4 percent to $327 billion in 2018, accounting for 30 percent of all traveler expenditures.

Table 2: Travel Expenditures - U.S. Nationwide

	2017 Spending ($ Billions)			2018 Spending ($ Billions)		
Category	Domestic	Intl.*	Total	Domestic	Intl.*	Total
Public Transportation	$175.1	$16.4	$191.6	$183.6	$16.8	$200.4
Auto Transportation	148.9	1.9	150.9	164.6	2.0	166.5
Lodging	172.8	48.9	221.7	182.7	49.4	232.2
Foodservice	224.8	32.8	257.6	234.8	32.9	267.7
Entertainment & Recreation	95.1	13.5	108.6	99.1	13.5	112.6
General Retail Trade	65.1	42.3	107.3	68.0	41.6	109.6
Total	**$881.9**	**$155.8**	**$1,037.7**	**$932.7**	**$156.3**	**$1,089.0**

Source: U.S. Travel Association

** Excludes international passenger fare payments.*

Travel Employment in 2018

The 2018 labor market continued to expand at a healthy rate. Over 2018, an average of 149.1 million people were employed on nonfarm payrolls, a 1.7% increase from 2017. In addition to creating 2.5 million jobs in 2018, the unemployment rate dropped from 4.4 percent in 2017 to 3.9 percent in 2018, the lowest annual average unemployment rate since 1969. Additionally, the fall in unemployment was progressive and consistent across 2018: the unemployment rate started the year at 4.1 percent and reached as low as 3.7 percent in November 2018 before ending the year at 3.9 percent.

The unemployment rate continues to fall. In both April and May 2019, the monthly unemployment stayed at a 49-year low of 3.6 percent. Moreover, other measures of labor market health continue. During the first five months of 2019, real disposable personal income increased 2.3 percent compared to the first five months of 2018.

American service industries, of which the travel industry is a part, played a major role in the post-recession jobs recovery in the current economic expansion period. The 15.8 million service jobs gained from 2010 to 2018 represent 84 percent of the total new jobs over that eight-year period. The travel industry joined health care; administrative services; accommodation and foodservices; and retail trade as one of the leading growth industries in terms of overall jobs created from 2010 to 2018.

In 2018, traveler spending directly supported over 8.9 million U.S. jobs, including both full-time and seasonal/part-time positions, up 1.3 percent from 2017, accounted for 6 percent of total non-farm employment in the U.S. These 8.9 million travel-generated jobs are a vital part of the U.S. economy. Without these jobs, the 2018 national unemployment rate of 3.9 percent would have more-than-doubled to 9.4 percent.

Table 3: Travel Generated Employment - U.S. Nationwide

	2017 Employment (Thousands)			2018 Employment (Thousands)		
Category	Domestic	Intl.*	Total	Domestic	Intl.*	Total
Public Transportation	977.2	76.2	1,053.5	991.5	76.9	1,068.3
Auto Transportation	304.0	2.4	306.4	306.9	2.3	309.2
Lodging	1,349.8	276.0	1,625.8	1,373.8	273.4	1,647.2
Foodservice	3,138.2	445.2	3,583.4	3,183.7	441.2	3,624.9
Entertainment & Recreation	1,275.0	239.2	1,514.2	1,313.4	240.2	1,553.6
General Retail Trade	381.2	165.0	546.2	382.5	159.2	541.7
Travel Planning	182.8		182.8	183.3		183.3
Total	**7,608.2**	**1,204.0**	**8,812.2**	**7,735.0**	**1,193.3**	**8,928.3**

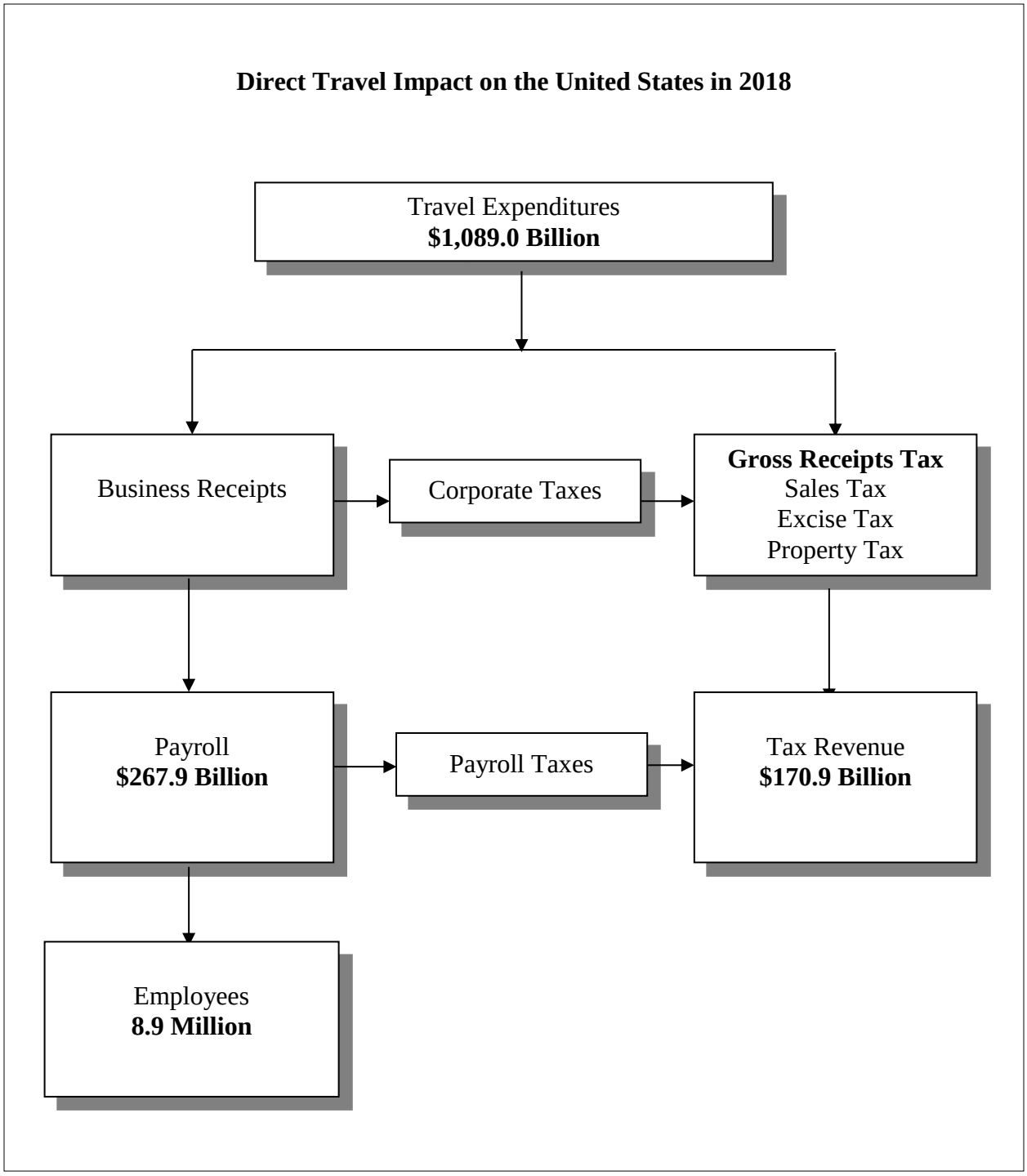
Source: U.S. Travel Association

** Excludes jobs supported by international passenger fare payments*

Table 4: U.S. Travel Forecasts

	2016	2017	2018	2019	2020	2021	2022
GDP ($ Billions of current dollars)	18,715.0	19,519.4	20,580.2	21,446.4	22,208.3	23,051.4	23,956.8
Unemployment Rate (%)	4.9	4.4	3.9	3.6	3.5	3.7	3.8
Consumer Price Index (CPI)*	240.0	245.1	251.1	256.3	261.1	265.9	271.2
Travel Price Index (TPI)*	273.1	279.4	286.5	289.0	293.2	298.5	303.8
Total Travel Expenditures in U.S. ($ Billions)	994.1	1,037.7	1,089.0	1,118.7	1,160.6	1,209.4	1,257.7
U.S. Residents	838.5	881.9	932.7	959.7	996.3	1,038.3	1,079.6
International Visitors**	155.6	155.8	156.3	159.0	164.4	171.1	178.1
Total International Visitors to the U.S. (Millions)	76.4	77.2	79.9	79.1	80.7	82.9	85.3
Canada	19.3	20.5	21.5	20.8	21.5	21.9	22.5
Mexico	19.0	17.8	18.5	17.8	18.0	18.5	19.1
Overseas Arrivals to the U.S. (Millions)	38.1	38.9	39.9	40.5	41.2	42.5	43.7
Total Domestic Person-Trips (Millions)	2,206.6	2,240.8	2,278.0	2,317.0	2,349.3	2,385.9	2,430.3
Business	454.7	454.4	459.3	464.4	468.9	475.6	482.7
Leisure	1,751.8	1,786.4	1,818.7	1,852.7	1,880.4	1,910.3	1,947.6
Percent Change from Previous Year (%)							
Real GDP	1.6	2.4	2.9	2.4	1.6	1.8	1.9
Consumer Price Index (CPI)	1.3	2.1	2.4	2.1	1.9	1.8	2.0
Travel Price Index (TPI)	0.3	2.3	2.5	0.9	1.4	1.8	1.7
Total Travel Expenditures in U.S.	2.0	4.4	4.9	2.7	3.7	4.2	4.0
U.S. Residents	2.9	5.2	5.8	2.9	3.8	4.2	4.0
International Visitors	-2.7	0.1	0.3	1.7	3.4	4.1	4.1
Total International Visitors to the U.S.	-1.8	1.1	3.4	-1.0	2.0	2.8	3.0
Canada	-6.8	6.3	4.8	-3.0	3.0	2.0	3.0
Mexico	3.4	-6.1	3.9	-4.0	1.0	3.0	3.0
Overseas Arrivals to the U.S.	-1.5	2.0	2.5	1.5	1.9	3.1	2.9
Total Domestic Person-Trips	1.3	1.6	1.7	1.7	1.4	1.6	1.9
Business	-1.1	-0.1	1.1	1.1	1.0	1.4	1.5
Leisure	1.9	2.0	1.8	1.9	1.5	1.6	1.9

Sources: U.S. Travel Association
**1982-84=100. ** International traveler spending does not include international passenger fares.*



Source: U.S. Travel Association, BEA
**Does not include international passenger fare payments and other economic impact generated by these payments.*

TRAVEL IMPACT ON MASSACHUSETTS - 2018

TRAVEL IMPACT ON MASSACHUSETTS - 2018

Travel Expenditures

Domestic and international travelers in Massachusetts directly spent $24.2 billion on transportation, lodging, food, entertainment and recreation, and retail shopping during 2018, representing an increase of 5.6 percent from 2017. Domestic travelers spent $19.9 billion, while international travelers spent $4.3 billion, up 6.0 percent and 3.7 percent, respectively, from 2017.

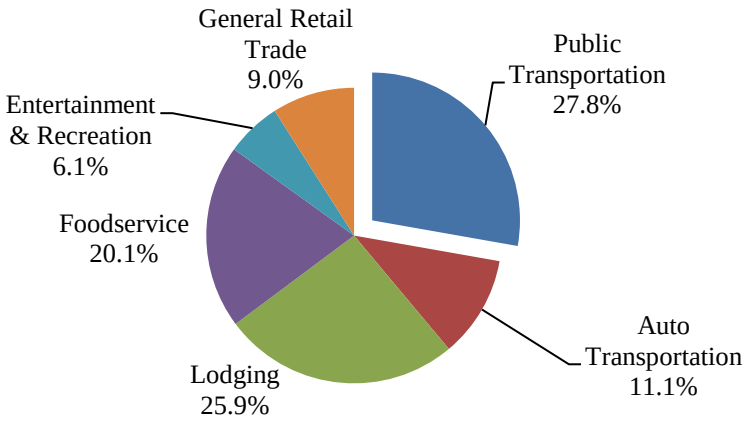
In 2018, domestic and international travelers spent $6.7 billion on public transportation, up 4.7 percent from 2017.

Domestic and international travelers spent $6.3 billion on lodging during 2018, an increase of 7.3 percent from 2017. According to Smith Travel Research, hotel room demand increased by 6.0 percent in 2018, while the average daily room rate increased by 1.3 percent.

Spending on foodservice by domestic and international travelers totaled $4.9 billion, up 4.9 percent from 2017.

Domestic and international travel spending on auto transportation increased by 8.4 percent in 2018 to $2.7 billion, largely caused by much higher gasoline prices during 2018.

Travel Spending in Massachusetts in 2018 by Industry Sector



1. Auto transportation sector includes privately-owned vehicles that are used for trips (e.g., automobiles, trucks, campers or other recreational vehicles), gasoline service stations, and automotive rental.
2. Foodservice sector includes restaurants, grocery stores and other eating and drinking establishments.
3. Public transportation sector comprises air, intercity bus, rail, boat or ship, and taxicab or limousine service.
4. Lodging sector consists of hotels and motels, campgrounds, and ownership or rental of vacation or second homes.
5. General retail trade sector includes gifts, clothes, souvenirs and other incidental retail purchases.
6. Entertainment and recreation sector includes amusement parks and attractions, attendance at nightclubs, movies, legitimate shows, sports events, and other forms of entertainment and recreation while traveling.

Table 5: Direct Travel Expenditures in Massachusetts by Industry Sector, 2017-2018

2018 Expenditures	Domestic ($Millions)	International ($Millions)	Total ($Millions)	% of Total
Public Transportation	$6,235.1	$475.0	$6,710.2	27.8%
Auto Transportation	2,631.3	58.1	2,689.4	11.1%
Lodging	4,603.8	1,649.8	6,253.6	25.9%
Foodservice	4,015.4	843.6	4,859.0	20.1%
Entertainment & Recreation	1,136.8	327.5	1,464.3	6.1%
General Retail Trade	1,241.3	938.7	2,180.0	9.0%
Total	$19,863.8	$4,292.7	$24,156.5	100.0%
2017 Expenditures				
Public Transportation	$5,944.0	$463.6	$6,407.6	28.0%
Auto Transportation	2,427.6	53.8	2,481.4	10.8%
Lodging	4,237.3	1,591.6	5,828.9	25.5%
Foodservice	3,823.0	806.9	4,629.9	20.2%
Entertainment & Recreation	1,108.2	319.4	1,427.6	6.2%
General Retail Trade	1,191.0	903.4	2,094.5	9.2%
Total	$18,731.1	$4,138.7	$22,869.8	100.0%

Percentage change 2018 over 2017	Domestic (%)	International (%)	Total (%)
Public Transportation	4.9%	2.5%	4.7%
Auto Transportation	8.4%	8.1%	8.4%
Lodging	8.6%	3.7%	7.3%
Foodservice	5.0%	4.5%	4.9%
Entertainment & Recreation	2.6%	2.5%	2.6%
General Retail Trade	4.2%	3.9%	4.1%
Total	6.0%	3.7%	5.6%

Source: U.S. Travel Association

Table 6: Direct Travel Expenditures in Massachusetts by Industry Sector, 2014-2018
(Expenditures $ Millions)

	2014	2014	2014	2015	2015	2015	2016	2016	2016	2017	2017	2017	2018	2018	2018
Expenditures	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	5,544.7	431.4	5,976.1	5,693.7	421.9	6,115.6	5,740.0	432.6	6,172.6	5,944.0	463.6	6,407.6	6,235.1	475.0	6,710.2
Auto Transportation	2,401.7	51.3	2,453.1	2,271.2	52.1	2,323.4	2,285.8	52.5	2,338.2	2,427.6	53.8	2,481.4	2,631.3	58.1	2,689.4
Lodging	3,601.7	1,337.1	4,938.8	3,934.2	1,463.9	5,398.1	4,057.0	1,515.6	5,572.6	4,237.3	1,591.6	5,828.9	4,603.8	1,649.8	6,253.6
Foodservice	3,288.9	684.6	3,973.5	3,495.1	731.5	4,226.7	3,639.6	754.2	4,393.8	3,823.0	806.9	4,629.9	4,015.4	843.6	4,859.0
Entertainment & Rec.	964.1	283.3	1,247.5	991.8	290.9	1,282.6	1,042.1	301.6	1,343.7	1,108.2	319.4	1,427.6	1,136.8	327.5	1,464.3
General Retail Trade	1,045.3	879.8	1,925.1	1,098.7	837.5	1,936.2	1,140.3	859.0	1,999.3	1,191.0	903.4	2,094.5	1,241.3	938.7	2,180.0
Total	16,846.4	3,667.6	20,514.0	17,484.7	3,797.8	21,282.6	17,904.7	3,915.5	21,820.2	18,731.1	4,138.7	22,869.8	19,863.8	4,292.7	24,156.5
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	5.3%	4.0%	5.2%	2.7%	-2.2%	2.3%	0.8%	2.5%	0.9%	3.6%	7.2%	3.8%	4.9%	2.5%	4.7%
Auto Transportation	1.6%	5.0%	1.6%	-5.4%	1.5%	-5.3%	0.6%	0.7%	0.6%	6.2%	2.5%	6.1%	8.4%	8.1%	8.4%
Lodging	8.2%	11.7%	9.1%	9.2%	9.5%	9.3%	3.1%	3.5%	3.2%	4.4%	5.0%	4.6%	8.6%	3.7%	7.3%
Foodservice	4.9%	7.1%	5.3%	6.3%	6.9%	6.4%	4.1%	3.1%	4.0%	5.0%	7.0%	5.4%	5.0%	4.5%	4.9%
Entertainment & Rec.	4.3%	5.5%	4.6%	2.9%	2.7%	2.8%	5.1%	3.7%	4.8%	6.3%	5.9%	6.2%	2.6%	2.5%	2.6%
General Retail Trade	3.7%	6.3%	4.9%	5.1%	-4.8%	0.6%	3.8%	2.6%	3.3%	4.4%	5.2%	4.8%	4.2%	3.9%	4.1%
Total	5.1%	8.0%	5.6%	3.8%	3.6%	3.7%	2.4%	3.1%	2.5%	4.6%	5.7%	4.8%	6.0%	3.7%	5.6%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	32.9%	11.8%	29.1%	32.6%	11.1%	28.7%	32.1%	11.0%	28.3%	31.7%	11.2%	28.0%	31.4%	11.1%	27.8%
Auto Transportation	14.3%	1.4%	12.0%	13.0%	1.4%	10.9%	12.8%	1.3%	10.7%	13.0%	1.3%	10.8%	13.2%	1.4%	11.1%
Lodging	21.4%	36.5%	24.1%	22.5%	38.5%	25.4%	22.7%	38.7%	25.5%	22.6%	38.5%	25.5%	23.2%	38.4%	25.9%
Foodservice	19.5%	18.7%	19.4%	20.0%	19.3%	19.9%	20.3%	19.3%	20.1%	20.4%	19.5%	20.2%	20.2%	19.7%	20.1%
Entertainment & Rec.	5.7%	7.7%	6.1%	5.7%	7.7%	6.0%	5.8%	7.7%	6.2%	5.9%	7.7%	6.2%	5.7%	7.6%	6.1%
General Retail Trade	6.2%	24.0%	9.4%	6.3%	22.1%	9.1%	6.4%	21.9%	9.2%	6.4%	21.8%	9.2%	6.2%	21.9%	9.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association
** Compared with previous year and not adjusted by inflation rate.*

TRAVEL IMPACT ON MASSACHUSETTS – 2018

Travel-Generated Payroll

Travel-generated payroll is the wage and salary income paid to employees directly serving travelers within the industry sectors from which travelers purchase goods and services. One dollar of travel spending generates different amounts of payroll income within the various travel industry sectors, depending on the labor content and the wage structure of each sector.

Payroll income generated by domestic and international travel in Massachusetts increased 5.4 percent from 2017, totaling $5.6 billion in 2018.

Of this total, $4.7 billion in payroll income was directly generated by domestic travelers, a 5.7 percent increase from 2017. International travelers' spending in the state directly generated $966.2 million in payroll income for Massachusetts' travel industry employees, up 4.2 percent from 2017.

On average, every dollar spent by domestic and international travelers produced $0.23 in payroll income for Massachusetts' residents during 2018.

Travel-generated payroll for the public transportation sector showed the most growth among seven sectors investigated, up 8.9 percent from 2017 to nearly $1.1 billion. Payroll for the lodging sector increased 7.2 percent from 2017.

The average payroll income generated by travel in Massachusetts stood at $36,687 in 2018, an increase of 2.8 percent from 2017.

Travel-Generated Payroll in Massachusetts in 2018 by Industry Sector

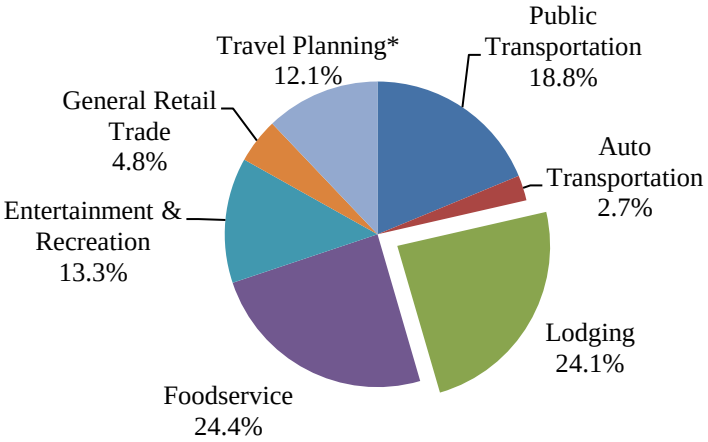


Table 7: Direct Travel-Generated Payroll in Massachusetts by Industry Sector, 2017-2018

2018 Payroll	Domestic ($Millions)	International ($Millions)	Total ($Millions)	% of Total
Public Transportation	$985.6	$68.2	$1,053.9	18.8%
Auto Transportation	146.0	3.8	149.8	2.7%
Lodging	1,003.0	349.4	1,352.4	24.1%
Foodservice	1,124.1	245.0	1,369.2	24.4%
Entertainment & Recreation	573.6	171.9	745.5	13.3%
General Retail Trade	140.3	127.8	268.1	4.8%
Travel Planning *	680.0	0.0	680.0	12.1%
Total	$4,652.6	$966.2	$5,618.8	100.0%
2017 Payroll				
Public Transportation	$903.9	$63.9	$967.8	18.2%
Auto Transportation	141.6	3.7	145.3	2.7%
Lodging	926.0	335.7	1,261.7	23.7%
Foodservice	1,078.0	235.9	1,314.0	24.6%
Entertainment & Recreation	545.4	163.5	708.9	13.3%
General Retail Trade	136.3	124.6	260.9	4.9%
Travel Planning *	672.1	0.0	672.1	12.6%
Total	$4,403.3	$927.3	$5,330.6	100.0%

Percentage change 2018 over 2017	Domestic (%)	International (%)	Total (%)
Public Transportation	9.0%	6.7%	8.9%
Auto Transportation	3.1%	4.0%	3.1%
Lodging	8.3%	4.1%	7.2%
Foodservice	4.3%	3.8%	4.2%
Entertainment & Recreation	5.2%	5.1%	5.2%
General Retail Trade	2.9%	2.6%	2.8%
Travel Planning *	1.2%	_	1.2%
Total	5.7%	4.2%	5.4%

Source: U.S. Travel Association

**Refers to payroll income that goes to travel agents, tour operators, and other travel service employees who arrange passenger transportation, lodging, tours and other related services.*

Table 8: Direct Travel Payroll in Massachusetts by Industry Sector, 2014-2018

(Payroll $ Millions)

	2014	2014	2014	2015	2015	2015	2016	2016	2016	2017	2017	2017	2018	2018	2018
Payroll	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	686.1	47.9	733.9	762.7	51.2	813.9	833.6	56.9	890.5	903.9	63.9	967.8	985.6	68.2	1053.9
Auto Trans.	133.7	3.4	137.1	137.9	3.7	141.6	139.5	3.8	143.3	141.6	3.7	145.3	146.0	3.8	149.8
Lodging	818.6	297.6	1,116.3	870.9	312.7	1,183.6	901.8	325.1	1,227.0	926.0	335.7	1,261.7	1003.0	349.4	1352.4
Foodservice	870.5	194.4	1,064.9	933.1	202.5	1,135.7	1,006.3	216.2	1,222.5	1,078.0	235.9	1,314.0	1124.1	245.0	1369.2
Entertainment & Rec.	462.1	140.0	602.1	491.8	150.0	641.8	522.6	157.3	679.9	545.4	163.5	708.9	573.6	171.9	745.5
General Retail Trade	123.4	122.7	246.1	132.3	121.5	253.8	132.8	120.6	253.5	136.3	124.6	260.9	140.3	127.8	268.1
Travel Planning	445.8	_	445.8	476.7	_	476.7	624.2	_	624.2	672.1	_	672.1	680.0	_	680.0
Total	3,540.2	806.0	4,346.2	3,805.3	841.8	4,647.1	4,160.9	880.0	5,040.9	4,403.3	927.3	5,330.6	4,652.6	966.2	5,618.8
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	4.7%	2.8%	4.5%	11.2%	7.0%	10.9%	9.3%	11.2%	9.4%	8.4%	12.2%	8.7%	9.0%	6.7%	8.9%
Auto Trans.	-0.2%	4.6%	-0.1%	3.1%	10.1%	3.3%	1.2%	1.2%	1.2%	1.5%	-2.1%	1.4%	3.1%	4.0%	3.1%
Lodging	4.8%	6.8%	5.3%	6.4%	5.1%	6.0%	3.6%	4.0%	3.7%	2.7%	3.2%	2.8%	8.3%	4.1%	7.2%
Foodservice	5.6%	7.8%	6.0%	7.2%	4.2%	6.6%	7.8%	6.8%	7.6%	7.1%	9.1%	7.5%	4.3%	3.8%	4.2%
Entertainment & Rec.	4.4%	5.7%	4.7%	6.4%	7.2%	6.6%	6.3%	4.9%	5.9%	4.4%	3.9%	4.3%	5.2%	5.1%	5.2%
General Retail Trade	2.3%	4.9%	3.5%	7.2%	-1.0%	3.1%	0.4%	-0.8%	-0.1%	2.6%	3.3%	2.9%	2.9%	2.6%	2.8%
Travel Planning	4.8%	_	4.8%	6.9%	_	6.9%	30.9%	_	30.9%	7.7%	_	7.7%	1.2%	_	1.2%
Total	4.6%	6.3%	4.9%	7.5%	4.4%	6.9%	9.3%	4.5%	8.5%	5.8%	5.4%	5.7%	5.7%	4.2%	5.4%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	19.4%	5.9%	16.9%	20.0%	6.1%	17.5%	20.0%	6.5%	17.7%	20.5%	6.9%	18.2%	21.2%	7.1%	18.8%
Auto Trans.	3.8%	0.4%	3.2%	3.6%	0.4%	3.0%	3.4%	0.4%	2.8%	3.2%	0.4%	2.7%	3.1%	0.4%	2.7%
Lodging	23.1%	36.9%	25.7%	22.9%	37.2%	25.5%	21.7%	36.9%	24.3%	21.0%	36.2%	23.7%	21.6%	36.2%	24.1%
Foodservice	24.6%	24.1%	24.5%	24.5%	24.1%	24.4%	24.2%	24.6%	24.3%	24.5%	25.4%	24.6%	24.2%	25.4%	24.4%
Entertainment & Rec.	13.1%	17.4%	13.9%	12.9%	17.8%	13.8%	12.6%	17.9%	13.5%	12.4%	17.6%	13.3%	12.3%	17.8%	13.3%
General Retail Sales	3.5%	15.2%	5.7%	3.5%	14.4%	5.5%	3.2%	13.7%	5.0%	3.1%	13.4%	4.9%	3.0%	13.2%	4.8%
Travel Planning	12.6%	_	10.3%	12.5%	_	10.3%	15.0%	_	12.4%	15.3%	_	12.6%	14.6%	_	12.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association
** Compared with previous year.*

TRAVEL IMPACT ON MASSACHUSETTS - 2018

Travel-Generated Employment

One of the travel industry's most important contributions to Massachusetts' economy is in the number of businesses and jobs it supports. These jobs include a large number of executive and managerial positions as well as service-focused occupations.

Domestic and international traveler spending in Massachusetts directly generated 153,200 jobs, up 2.5 percent from 2017. Employment generated by domestic traveler spending increased 2.7 percent, and employment generated from international spending increased 1.8 percent.

On average, every $157,724 spent by domestic and international travelers in Massachusetts directly supported one job in 2018.

These travel-generated jobs comprised 4.2 percent of total non-agricultural employment in Massachusetts during 2018. Without these jobs generated by travel, Massachusetts's 2018 unemployment rate of 3.3 percent would have been 4.0 percentage points higher, to 7.4 percent.

Domestic and international traveler spending on foodservice, including restaurants and other eating and drinking places, provided more jobs than any other travel industry sector, up 1.2 percent from 2017 to 57,200 jobs. The labor intensiveness of these businesses contributes to the high level of travel employment in this sector.

Travel-Generated Employment in Massachusetts in 2018 by Industry Sector

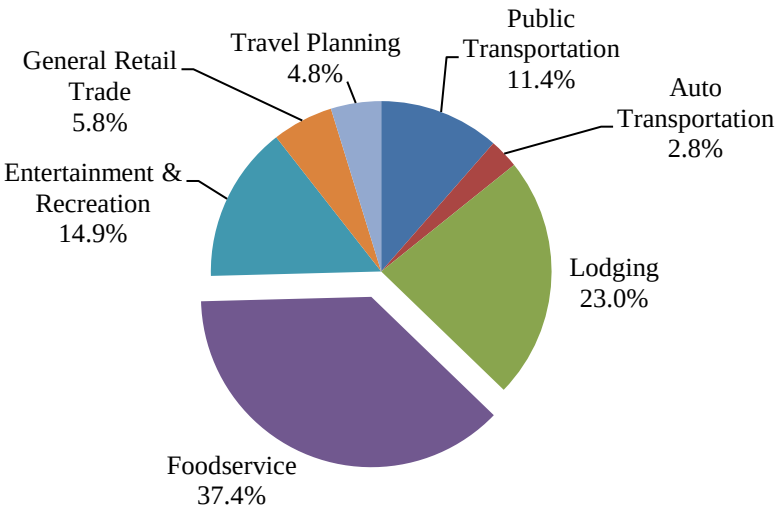


Table 9: Direct Travel-Generated Employment in Massachusetts by Industry Sector, 2017-2018

2018 Employment	Domestic (Thousands)	International (Thousands)	Total (Thousands)	% of Total
Public Transportation	16.3	1.2	17.5	11.4%
Auto Transportation	4.2	0.1	4.3	2.8%
Lodging	27.1	8.1	35.2	23.0%
Foodservice	47.9	9.3	57.2	37.4%
Entertainment & Recreation	17.8	4.9	22.7	14.9%
General Retail Trade	4.8	4.1	8.9	5.8%
Travel Planning *	7.3	0.0	7.3	4.8%
Total	125.4	27.7	153.2	100.0%

2017 Employment				
Public Transportation	15.5	1.2	16.7	11.2%
Auto Transportation	4.2	0.1	4.3	2.9%
Lodging	25.7	8.0	33.7	22.5%
Foodservice	47.3	9.2	56.5	37.8%
Entertainment & Recreation	17.1	4.7	21.8	14.6%
General Retail Trade	4.7	4.0	8.7	5.9%
Travel Planning *	7.6	0.0	7.6	5.1%
Total	122.2	27.2	149.4	100.0%

Percentage change 2018 over 2017	Domestic (%)	International (%)	Total (%)
Public Transportation	5.2%	2.9%	5.0%
Auto Transportation	-0.2%	0.5%	-0.2%
Lodging	5.4%	1.6%	4.5%
Foodservice	1.3%	0.9%	1.2%
Entertainment & Recreation	4.2%	4.2%	4.2%
General Retail Trade	1.6%	1.3%	1.5%
Travel Planning *	-4.2%	_	-4.2%
Total	2.7%	1.8%	2.5%

Source: U.S. Travel Association

** Refers to jobs created in travel arrangement firms such as travel agencies, wholesale and retail tour companies, and other travel-related service businesses.*

Table 10: Direct Travel Employment in Massachusetts by Industry Sector, 2014-2018

(Employment in Thousands)

	2014	2014	2014	2015	2015	2015	2016	2016	2016	2017	2017	2017	2018	2018	2018
Employment	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	14.3	1.0	15.3	14.8	1.0	15.9	15.2	1.1	16.3	15.5	1.2	16.7	16.3	1.2	17.5
Auto Trans.	4.0	0.1	4.1	4.1	0.1	4.2	4.1	0.1	4.3	4.2	0.1	4.3	4.2	0.1	4.3
Lodging	24.9	7.7	32.6	25.4	7.8	33.2	25.8	8.0	33.8	25.7	8.0	33.7	27.1	8.1	35.2
Foodservice	44.1	8.6	52.7	45.0	8.7	53.7	46.3	8.8	55.2	47.3	9.2	56.5	47.9	9.3	57.2
Entertainment & Rec.	15.5	4.2	19.7	16.0	4.5	20.5	16.6	4.6	21.2	17.1	4.7	21.8	17.8	4.9	22.7
General Retail Trade	4.7	4.0	8.8	4.9	4.0	8.9	4.8	4.0	8.8	4.7	4.0	8.7	4.8	4.1	8.9
Travel Planning	5.8	_	5.8	5.9	_	5.9	6.9	_	6.9	7.6	_	7.6	7.3	_	7.3
Total	113.3	25.6	138.9	116.0	26.2	142.2	119.7	26.6	146.3	122.2	27.2	149.4	125.4	27.7	153.2
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	0.1%	0.1%	0.1%	3.4%	7.0%	3.6%	2.6%	4.3%	2.7%	2.3%	5.8%	2.5%	5.2%	2.9%	5.0%
Auto Trans.	1.6%	5.0%	1.7%	2.6%	7.9%	2.8%	1.7%	1.8%	1.7%	1.2%	-2.4%	1.1%	-0.2%	0.5%	-0.2%
Lodging	1.4%	2.0%	1.6%	2.0%	1.6%	1.9%	1.8%	2.2%	1.9%	-0.5%	0.1%	-0.3%	5.4%	1.6%	4.5%
Foodservice	2.3%	3.3%	2.4%	2.0%	1.5%	1.9%	2.8%	1.8%	2.6%	2.2%	4.1%	2.5%	1.3%	0.9%	1.2%
Entertainment & Rec.	3.5%	4.8%	3.8%	3.1%	6.2%	3.8%	4.0%	2.6%	3.7%	2.9%	2.5%	2.8%	4.2%	4.2%	4.2%
General Retail Trade	0.6%	1.0%	0.8%	2.9%	-0.8%	1.2%	-1.6%	-0.8%	-1.2%	-1.4%	1.3%	-0.2%	1.6%	1.3%	1.5%
Travel Planning	3.0%	_	3.0%	2.7%	_	2.7%	15.9%	_	15.9%	11.1%	_	11.1%	-4.2%	_	-4.2%
Total	1.9%	2.6%	2.0%	2.4%	2.2%	2.4%	3.2%	1.8%	2.9%	2.1%	2.2%	2.1%	2.7%	1.8%	2.5%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	12.6%	3.8%	11.0%	12.8%	4.0%	11.1%	12.7%	4.1%	11.1%	12.7%	4.3%	11.2%	13.0%	4.3%	11.4%
Auto Trans.	3.5%	0.5%	2.9%	3.5%	0.5%	2.9%	3.4%	0.5%	2.9%	3.4%	0.5%	2.9%	3.3%	0.4%	2.8%
Lodging	22.0%	30.0%	23.4%	21.9%	29.8%	23.3%	21.6%	29.9%	23.1%	21.0%	29.3%	22.5%	21.6%	29.3%	23.0%
Foodservice	39.0%	33.4%	38.0%	38.8%	33.2%	37.8%	38.7%	33.2%	37.7%	38.7%	33.8%	37.8%	38.2%	33.5%	37.4%
Entertainment & Rec.	13.7%	16.5%	14.2%	13.8%	17.2%	14.4%	13.9%	17.3%	14.5%	14.0%	17.4%	14.6%	14.2%	17.8%	14.9%
General Retail Sales	4.2%	15.8%	6.3%	4.2%	15.3%	6.2%	4.0%	15.0%	6.0%	3.9%	14.8%	5.9%	3.8%	14.7%	5.8%
Travel Planning	5.1%	_	4.2%	5.1%	_	4.2%	5.7%	_	4.7%	6.2%	_	5.1%	5.8%	_	4.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association

** Compared with previous year and not adjusted by inflation rate.*

TRAVEL IMPACT ON MASSACHUSETTS - 2018

Travel-Generated Tax Revenue

Travel tax receipts are the federal, state and local tax revenues attributable to travel spending in Massachusetts. Travel-generated tax revenue is a significant economic benefit, as governments use these funds to support the travel infrastructure and help support a variety of public programs.

In 2018, domestic and international traveler spending in Massachusetts generated $3.7 billion in tax revenue for federal, state and local governments, up 5.1 percent from 2017. Domestic traveler spending generated $3.0 billion and international traveler spending generated $701.3 million, up 5.4 percent and 3.7 percent, respectively, from 2017.

Of the total $3.7 billion in tax revenue, the federal government received 57.5 percent or $2.1 billion, up 5.1 percent from 2017. Each dollar spent by domestic and international travelers in Massachusetts produced 8.9 cents for federal tax coffers.

Domestic and international traveler spending in Massachusetts also generated $990.6 million in tax revenue for the state treasury through state sales and excise taxes, and taxes on personal and corporate income during 2018, up 5.0 percent from 2017. This $990.6 million comprised 26.5 percent of all travel-generated tax revenue collected in the state. On average, each travel dollar produced 4.1 cents in state tax receipts.

Local governments in Massachusetts directly benefited from travel as well. Travel taxes collected by local governments increased 5.3 percent to $596.5 million in 2018 through various kinds of county or city taxes such as local hotel occupancy tax, sales tax and property tax related to travel, etc. Each domestic travel dollar produced 2.5 cents for local tax coffers.

Travel-Generated Tax Revenue in Massachusetts in 2018 by Level of Government

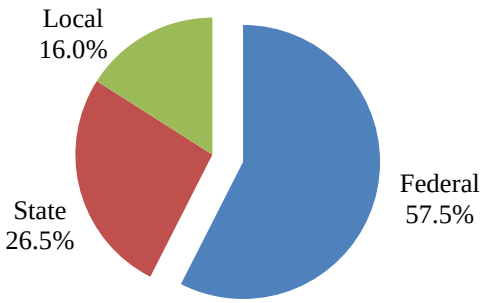


Table 11: Direct Travel-Generated Tax Revenue in Massachusetts by Level of Government, 2017-2018

2018 Tax Revenue	Domestic ($ Millions)	International ($ Millions)	Total ($ Millions)	% of Total
Federal	$1,717.3	$428.7	$2,146.1	57.5%
State	810.8	179.8	990.6	26.5%
Local	503.8	92.7	596.5	16.0%
Total	$3,031.9	$701.3	$3,733.2	100.0%
2017 Tax Revenue				
Federal	$1,628.4	$413.8	$2,042.2	57.5%
State	769.9	173.5	943.4	26.6%
Local	477.4	89.1	566.5	15.9%
Total	$2,875.7	$676.4	$3,552.1	100.0%
Percentage change 2018 over 2017	Domestic (%)	International (%)	Total (%)	
Federal	5.5%	3.6%	5.1%	
State	5.3%	3.6%	5.0%	
Local	5.5%	4.1%	5.3%	
Total	5.4%	3.7%	5.1%	

Source: U.S. Travel Association

Table 12: Direct Travel Tax Revenue in Massachusetts by Level of Government, 2014-2018
(Tax Revenues $ Millions)

	2014	2014	2014	2015	2015	2015	2016	2016	2016	2017	2017	2017	2018	2018	2018
Tax Revenue	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	1,378.5	345.1	1,723.6	1,463.7	365.6	1,829.3	1,552.8	390.5	1,943.3	1,628.4	413.8	2,042.2	1,717.3	428.7	2,146.1
State	645.8	143.4	789.3	700.0	155.1	855.1	739.7	165.0	904.8	769.9	173.5	943.4	810.8	179.8	990.6
Local	416.1	76.5	492.6	439.4	80.6	520.0	457.1	84.4	541.5	477.4	89.1	566.5	503.8	92.7	596.5
Total	2,440.4	565.0	3,005.5	2,603.0	601.3	3,204.3	2,749.7	639.9	3,389.6	2,875.7	676.4	3,552.1	3,031.9	701.3	3,733.2
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	4.9%	7.8%	5.5%	6.2%	5.9%	6.1%	6.1%	6.8%	6.2%	4.9%	6.0%	5.1%	5.5%	3.6%	5.1%
State	5.4%	8.3%	5.9%	8.4%	8.1%	8.3%	5.7%	6.4%	5.8%	4.1%	5.2%	4.3%	5.3%	3.6%	5.0%
Local	5.0%	7.8%	5.4%	5.6%	5.4%	5.6%	4.0%	4.7%	4.2%	4.4%	5.5%	4.6%	5.5%	4.1%	5.3%
Total	5.1%	7.9%	5.6%	6.7%	6.4%	6.6%	5.6%	6.4%	5.8%	4.6%	5.7%	4.8%	5.4%	3.7%	5.1%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	56.5%	61.1%	57.3%	56.2%	60.8%	57.1%	56.5%	61.0%	57.3%	56.6%	61.2%	57.5%	56.6%	61.1%	57.5%
State	26.5%	25.4%	26.3%	26.9%	25.8%	26.7%	26.9%	25.8%	26.7%	26.8%	25.7%	26.6%	26.7%	25.6%	26.5%
Local	17.1%	13.5%	16.4%	16.9%	13.4%	16.2%	16.6%	13.2%	16.0%	16.6%	13.2%	15.9%	16.6%	13.2%	16.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association
** Compared with previous year and not adjusted by inflation rate.*

MULTIPLIER IMPACT OF TRAVEL SPENDING IN MASSACHUSETTS

Travelers in Massachusetts produce "secondary" impacts over and above that of their original expenditures previously detailed. These secondary outputs (sales), employment and earnings (wage and salary income) arise from "indirect" and "induced" impacts.

Indirect impacts occur as travel industry business operators, such as restaurateurs, purchase goods, such as food and beverages, and services, such as electricity and building maintenance, from local suppliers. These purchases generate additional output or sales indirectly.

Induced impact occurs as a result of the employees of businesses, and their suppliers, spending part of their earnings in the area. This spending generates sales in addition to the indirect impact.

The sum of the indirect and induced effects comprises the total secondary impact in the state. The ratio of the sum of primary output generated plus secondary output to initial expenditures alone is commonly termed the sales or output "multiplier."

During the secondary impact process, wage and salary income (earnings) is generated in addition to that produced by the initial travel expenditures as the suppliers employ labor to produce the additional output. The "earnings multiplier" is the ratio of the total primary and secondary earnings generated by the initial travel spending to that spending. Just as additional earnings are created, employment is also generated during the secondary impact process. The "employment multiplier" represents the number of jobs provided, directly and indirectly, for each one million dollars of output or expenditures generated.

Table 13 summarizes the direct, indirect and induced, and total impacts of travel spending on the Massachusetts economy from 2014 to 2018. Table 14 shows the comparison of expenditure, earnings, and employment multipliers for the same period.

In 2018, the $24.2 billion spent directly by domestic and international travelers in Massachusetts generated $37.8 billion in total output, up 5.4 percent from 2017. The output multiplier (the ratio of total output to the initial spending) is 1.56. This indicates that the average travel dollar generated an additional 56 cents in secondary sales.

In addition to the $5.6 billion in payroll income generated by direct travel spending, $4.7 billion in earnings was produced by secondary impacts in 2018. The earnings multiplier (the ratio of total earnings generated to the initial spending) is 0.43.

In addition, travel in Massachusetts directly and indirectly supported a total of 244,700 jobs in 2018. The employment multiplier (the ratio of total employment generated to initial spending) is 10.1. This means that every $1 million spent by domestic and international travelers in Massachusetts supported 10.1 jobs in the state during 2018.

Table 13: Multiplier Impact of Traveler Spending in Massachusetts, 2014-2018

Year	Impact Measure	Direct Impact	Indirect & Induced Impact	Total Impact
2018	Expenditures (millions)	$24,156.5	$13,647.8	$37,804.3
	Earnings (millions)	$5,618.8	$4,736.9	$10,355.7
	Employment (thousands)	153.2	91.5	244.7
2017	Expenditures (millions)	$22,869.8	$12,996.3	$35,866.1
	Earnings (millions)	$5,330.6	$4,486.1	$9,816.8
	Employment (thousands)	149.4	89.1	238.5
2016	Expenditures (millions)	$21,820.2	$12,605.7	$34,425.9
	Earnings (millions)	$5,040.9	$4,393.8	$9,434.8
	Employment (thousands)	146.3	88.0	234.4
2015	Expenditures (millions)	$21,282.6	$12,362.3	$33,644.8
	Earnings (millions)	$4,647.1	$4,176.0	$8,823.1
	Employment (thousands)	142.2	85.9	228.1
2014	Expenditures (millions)	$20,514.0	$11,930.9	$32,444.9
	Earnings (millions)	$4,346.2	$3,924.8	$8,271.0
	Employment (thousands)	138.9	84.3	223.2

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, RIMS II; U.S. Travel Association

Table 14: Multipliers of Travel in Massachusetts, 2014-2018

Multipliers	**2014**	**2015**	**2016**	**2017**	**2018**
Output Multiplier	1.58	1.58	1.58	1.57	1.56
Earning Multiplier	0.40	0.41	0.43	0.43	0.43
Employment Multiplier	10.88	10.72	10.74	10.43	10.13

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, RIMS II; U.S. Travel Association

DOMESTIC TRAVEL IMPACT ON MASSACHUSETTS COUNTIES - 2018

During 2018, domestic travelers spent $19.9 billion while traveling in Massachusetts, up 6.0 percent from 2017. These expenditures directly generated $4.7 billion in payroll income and 125,400 jobs for Massachusetts' residents. Tax revenue generated by this spending amounted to $810.8 million for the state government and $503.8 million for local governments.

Travel expenditures occurred throughout all 14 counties in Massachusetts. The top five counties in Massachusetts received $16.1 billion in direct domestic traveler expenditures, 80.9 percent of the state total. Domestic travel expenditures directly generated $3.8 billion in payroll income (81.6 percent) in the top five counties and 100,500 jobs (80.1 percent) in 2018. Domestic traveler expenditures in the top five counties also generated $611.3 million in tax revenue for the state treasury and $390.7 million tax revenue for local governments in 2018. The top five counties in Massachusetts contributed 75.4 and 77.5 percent of the total tax revenue for the state treasury and local governments respectively.

Domestic Travel Impact on Top Five Counties

Suffolk County, which includes the city of Boston, led all counties in direct domestic travel expenditures, payroll income and jobs directly generated by domestic travel in 2018. Direct domestic travel expenditures in Suffolk County totaled $9.8 billion, accounting for nearly half (49.1%) of the state total, up 6.0 percent from 2017. These expenditures generated $2.0 billion in payroll income and 49,600 jobs for the county residents, up 5.6 percent and 2.7 percent respectively from 2017.

Middlesex County, which includes suburbs north and west of Boston, ranked second with over $2.9 billion in domestic travel spending in 2018, up 6.3 percent from 2017. Domestic traveler spending in Middlesex County represented about one-seventh (14.7%) of the state total. Payroll income and jobs directly attributable to domestic travel spending totaled $818.8 million and 22,700 jobs.

Norfolk County received $1.3 billion from domestic travelers, 6.4 percent of the state total and up 6.9 percent from 2017. These travel expenditures benefited the county with $410.0 million in payroll income and 11,300 jobs.

In fourth place, Barnstable County, which includes Cape Cod, posted $1.1 billion in domestic expenditures, 5.6 percent of the state total. The expenditures generated $309.4 million in payroll as well as 9,600 jobs within the county.

Essex County ranked fifth with $1.0 billion in domestic travel spending in 2018, a 6.2 percent increase from 2017. Domestic traveler spending in Essex County generated $246.8 million payroll income and 7,300 jobs during 2018.

Table 15: Domestic Travel Impact in Massachusetts - Top 5 Counties, 2017-2018

2018 Impact

County	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Suffolk	$9,760.7	$2,011.1	49.6	$266.8	$187.0
Middlesex	2,913.1	818.8	22.7	167.8	79.5
Norfolk	1,268.4	410.0	11.3	70.8	28.7
Barnstable	1,122.1	309.4	9.6	50.2	69.3
Essex	1,008.4	246.8	7.3	55.6	26.3
Five County Total	$16,072.7	$3,796.1	100.5	$611.3	$390.7
State Totals	$19,863.8	$4,652.6	125.4	$810.8	$503.8
Share of Top 5 Counties	80.9%	81.6%	80.1%	75.4%	77.5%

2017 Impact

Suffolk	9,207.7	1,904.5	48.3	253.5	177.1
Middlesex	2,741.5	773.5	22.2	159.1	75.1
Norfolk	1,186.4	385.0	10.9	66.7	27.0
Barnstable	1,060.9	293.6	9.4	47.8	65.8
Essex	949.9	233.4	7.1	52.8	24.9
Five County Total	$15,146.4	$3,590.0	97.8	$580.0	$369.9
State Total	$18,731.1	$4,403.3	122.2	$769.9	$477.4
Share of Top 5 Counties	80.9%	81.5%	80.1%	75.3%	77.5%

Percent Change
2018 over 2017

Suffolk	6.0%	5.6%	2.7%	5.2%	5.6%
Middlesex	6.3%	5.9%	2.4%	5.5%	5.8%
Norfolk	6.9%	6.5%	3.8%	6.1%	6.5%
Barnstable	5.8%	5.4%	2.3%	5.0%	5.3%
Essex	6.2%	5.7%	2.7%	5.4%	5.7%
Five County Total	6.1%	5.7%	2.7%	5.4%	5.6%
State Total	6.0%	5.7%	2.7%	5.3%	5.5%

Source: U.S. Travel Association

COUNTY TABLES

The following tables list the results of the County Economic Impact Component of U.S. Travel Association's Travel Economic Impact Model for Massachusetts in 2017 and 2018 estimates by county. The estimates presented are for direct domestic travel expenditures and related economic impact. Detailed international impact data is not available at the county level.

Table A	Counties listed alphabetically, with 2018 travel expenditures, travel-generated payroll and employment, and state tax revenue and the local tax revenue for each.
Table B	Ranks the counties in order of 2018 travel expenditures from highest to lowest.
Table C	Percent distribution for each impact measure in 2017.
Table D	Percent change in 2018 over 2017 estimates for each of the measures of economic impact.
Table E	Counties listed alphabetically, with 2017 travel expenditures, travel-generated payroll and employment, and state tax revenue and local tax revenue shown for each.
Table F	Annual domestic travel expenditures and percentage change over previous year by county from 2014 to 2018.
Table G	Domestic travel-generated payroll and percentage change over previous year by county from 2014 to 2018.
Table H	Domestic travel-generated employment and percentage change over previous year by county from 2014 to 2018.
Table I	Domestic travel-generated tax revenue and percentage change over previous year by county for state government from 2014 to 2018.
Table J	Domestic travel-generated tax revenue and percentage change over previous year by county for local government from 2014 to 2018.
Table K	Economic Impact of Domestic Travel on Massachusetts 15 RTCs, 2018.
Table L	Economic Impact of Domestic Travel on Massachusetts 15 RTCs, 2017.

2018 Domestic Travel Impact on Massachusetts
Table A: Alphabetical by County, Preliminary 2018

County	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Barnstable	$1,122.12	$309.38	9.57	$50.22	$69.29
Berkshire	467.88	124.53	3.98	24.19	13.78
Bristol	533.45	116.34	3.30	29.19	10.77
Dukes	150.50	39.75	1.30	5.98	8.85
Essex	1,008.38	246.81	7.34	55.62	26.28
Franklin	66.51	13.13	0.40	3.82	2.20
Hampden	578.18	138.86	3.54	33.26	12.06
Hampshire	148.48	34.02	0.97	8.28	4.13
Middlesex	2,913.13	818.80	22.74	167.84	79.47
Nantucket	181.30	41.74	1.10	5.75	6.48
Norfolk	1,268.39	409.98	11.29	70.79	28.70
Plymouth	671.36	142.16	4.23	34.12	31.76
Suffolk	9,760.70	2,011.13	49.56	266.78	186.97
Worcester	993.36	205.98	6.14	54.91	23.08
Statewide	$19,863.76	$4,652.63	125.43	$810.76	$503.82

2018 Domestic Travel Impact on Massachusetts
Table B: Ranking of Counties by Expenditure Levels, Preliminary 2018

County	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Suffolk	$9,760.70	$2,011.13	49.56	$266.78	$186.97
Middlesex	2,913.13	818.80	22.74	167.84	79.47
Norfolk	1,268.39	409.98	11.29	70.79	28.70
Barnstable	1,122.12	309.38	9.57	50.22	69.29
Essex	1,008.38	246.81	7.34	55.62	26.28
Worcester	993.36	205.98	6.14	54.91	23.08
Plymouth	671.36	142.16	4.23	34.12	31.76
Hampden	578.18	138.86	3.54	33.26	12.06
Bristol	533.45	116.34	3.30	29.19	10.77
Berkshire	467.88	124.53	3.98	24.19	13.78
Nantucket	181.30	41.74	1.10	5.75	6.48
Dukes	150.50	39.75	1.30	5.98	8.85
Hampshire	148.48	34.02	0.97	8.28	4.13
Franklin	66.51	13.13	0.40	3.82	2.20
Statewide	$19,863.76	$4,652.63	125.43	$810.76	$503.82

2018 Domestic Travel Impact on Massachusetts
Table C: Percent Distribution by County, Preliminary 2018

County	Expenditures	Payroll	Employment	State Tax	Local Tax
Barnstable	5.65%	6.65%	7.63%	6.19%	13.75%
Berkshire	2.36%	2.68%	3.18%	2.98%	2.73%
Bristol	2.69%	2.50%	2.63%	3.60%	2.14%
Dukes	0.76%	0.85%	1.03%	0.74%	1.76%
Essex	5.08%	5.30%	5.85%	6.86%	5.22%
Franklin	0.33%	0.28%	0.32%	0.47%	0.44%
Hampden	2.91%	2.98%	2.82%	4.10%	2.39%
Hampshire	0.75%	0.73%	0.77%	1.02%	0.82%
Middlesex	14.67%	17.60%	18.13%	20.70%	15.77%
Nantucket	0.91%	0.90%	0.88%	0.71%	1.29%
Norfolk	6.39%	8.81%	9.00%	8.73%	5.70%
Plymouth	3.38%	3.06%	3.37%	4.21%	6.30%
Suffolk	49.14%	43.23%	39.51%	32.91%	37.11%
Worcester	5.00%	4.43%	4.89%	6.77%	4.58%
Statewide	100.00%	100.00%	100.00%	100.00%	100.00%

2018 Domestic Travel Impact on Massachusetts
Table D: Percent Change over 2017

County	Expenditures	Payroll	Employment	State Tax	Local Tax
Barnstable	5.77%	5.36%	2.29%	4.99%	5.32%
Berkshire	2.47%	2.29%	1.00%	1.72%	2.03%
Bristol	5.89%	5.48%	2.41%	5.11%	5.44%
Dukes	4.91%	4.43%	2.01%	4.14%	4.46%
Essex	6.15%	5.74%	2.66%	5.37%	5.70%
Franklin	4.38%	4.06%	1.96%	3.62%	3.94%
Hampden	7.94%	7.52%	4.02%	7.15%	7.48%
Hampshire	6.23%	5.82%	2.73%	5.45%	5.77%
Middlesex	6.26%	5.85%	2.41%	5.48%	5.81%
Nantucket	5.19%	4.79%	2.15%	4.42%	4.74%
Norfolk	6.91%	6.50%	3.84%	6.13%	6.46%
Plymouth	5.87%	5.46%	2.39%	5.09%	5.42%
Suffolk	6.01%	5.60%	2.69%	5.23%	5.55%
Worcester	6.22%	5.81%	2.73%	5.44%	5.76%
Statewide	6.05%	5.66%	2.66%	5.31%	5.53%

2017 Domestic Travel Impact on Massachusetts
Table E: Alphabetical by County, 2017

County	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Barnstable	$1,060.92	$293.64	9.35	$47.83	$65.79
Berkshire	456.61	121.74	3.95	23.78	13.50
Bristol	503.78	110.30	3.22	27.77	10.21
Dukes	143.47	38.07	1.27	5.74	8.47
Essex	949.94	233.41	7.15	52.78	24.86
Franklin	63.72	12.62	0.39	3.68	2.12
Hampden	535.65	129.15	3.40	31.04	11.22
Hampshire	139.78	32.15	0.94	7.85	3.90
Middlesex	2,741.48	773.53	22.20	159.12	75.11
Nantucket	172.36	39.83	1.07	5.51	6.19
Norfolk	1,186.37	384.95	10.87	66.70	26.96
Plymouth	634.14	134.80	4.13	32.47	30.13
Suffolk	9,207.66	1,904.50	48.26	253.53	177.14
Worcester	935.20	194.67	5.97	52.08	21.82
Statewide	$18,731.08	$4,403.34	122.18	$769.90	$477.43

Table F: Domestic Travel Expenditures by County, 2014-2018

Expenditures ($ Millions)

County	2014	2015	2016	2017	2018
Barnstable	$956.6	$1,005.8	$1,044.0	$1,060.9	$1,122.1
Berkshire	386.9	412.6	420.7	456.6	467.9
Bristol	465.1	475.0	488.9	503.8	533.4
Dukes	133.3	140.6	142.2	143.5	150.5
Essex	861.8	876.2	898.9	949.9	1,008.4
Franklin	61.0	60.0	60.1	63.7	66.5
Hampden	489.0	489.0	502.5	535.7	578.2
Hampshire	125.3	128.1	132.2	139.8	148.5
Middlesex	2,457.8	2,547.7	2,610.7	2,741.5	2,913.1
Nantucket	162.2	168.4	169.4	172.4	181.3
Norfolk	1,052.5	1,101.3	1,126.5	1,186.4	1,268.4
Plymouth	563.3	595.1	604.9	634.1	671.4
Suffolk	8,306.9	8,628.2	8,822.1	9,207.7	9,760.7
Worcester	824.7	856.8	881.6	935.2	993.4
State Totals	**$16,846.4**	**$17,484.7**	**$17,904.7**	**$18,731.1**	**$19,863.8**

Percentage Change Over Previous Year

County	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Barnstable	2.7%	5.1%	3.8%	1.6%	5.8%
Berkshire	5.3%	6.6%	2.0%	8.5%	2.5%
Bristol	0.8%	2.1%	2.9%	3.0%	5.9%
Dukes	3.9%	5.4%	1.2%	0.9%	4.9%
Essex	5.6%	1.7%	2.6%	5.7%	6.2%
Franklin	3.5%	-1.6%	0.3%	6.0%	4.4%
Hampden	0.9%	0.0%	2.7%	6.6%	7.9%
Hampshire	1.0%	2.3%	3.2%	5.7%	6.2%
Middlesex	5.8%	3.7%	2.5%	5.0%	6.3%
Nantucket	2.8%	3.8%	0.6%	1.8%	5.2%
Norfolk	4.5%	4.6%	2.3%	5.3%	6.9%
Plymouth	4.4%	5.7%	1.6%	4.8%	5.9%
Suffolk	6.2%	3.9%	2.2%	4.4%	6.0%
Worcester	2.7%	3.9%	2.9%	6.1%	6.2%
State Totals	**5.1%**	**3.8%**	**2.4%**	**4.6%**	**6.0%**

Table G: Domestic Travel-Generated Payroll by County, 2014-2018

Payroll ($ Millions)

County	2014	2015	2016	2017	2018
Barnstable	$240.0	$260.1	$285.3	$293.6	$309.4
Berkshire	93.8	103.1	110.9	121.7	124.5
Bristol	92.0	96.8	105.8	110.3	116.3
Dukes	32.1	35.0	37.3	38.1	39.8
Essex	192.2	201.4	218.6	233.4	246.8
Franklin	10.7	10.9	11.8	12.6	13.1
Hampden	106.4	110.6	119.7	129.1	138.9
Hampshire	26.1	27.6	30.1	32.2	34.0
Middlesex	633.0	674.5	728.1	773.5	818.8
Nantucket	33.7	36.2	38.7	39.8	41.7
Norfolk	308.2	332.3	362.4	385.0	410.0
Plymouth	107.9	117.5	127.1	134.8	142.2
Suffolk	1,508.7	1,632.3	1,803.5	1,904.5	2,011.1
Worcester	155.4	166.9	181.7	194.7	206.0
State Totals	**$3,540.2**	**$3,805.3**	**$4,160.9**	**$4,403.3**	**$4,652.6**

Percentage Change Over Previous Year

County	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Barnstable	1.4%	8.4%	9.7%	2.9%	5.4%
Berkshire	4.2%	9.9%	7.6%	9.8%	2.3%
Bristol	1.3%	5.3%	9.3%	4.3%	5.5%
Dukes	2.8%	9.1%	6.4%	2.1%	4.4%
Essex	6.4%	4.8%	8.6%	6.8%	5.7%
Franklin	4.1%	2.4%	7.8%	7.2%	4.1%
Hampden	1.7%	3.9%	8.3%	7.9%	7.5%
Hampshire	1.4%	5.4%	9.1%	7.0%	5.8%
Middlesex	5.1%	6.6%	7.9%	6.2%	5.9%
Nantucket	2.6%	7.3%	6.9%	3.0%	4.8%
Norfolk	4.8%	7.8%	9.0%	6.2%	6.5%
Plymouth	4.1%	8.9%	8.1%	6.1%	5.5%
Suffolk	5.7%	8.2%	10.5%	5.6%	5.6%
Worcester	1.6%	7.4%	8.9%	7.1%	5.8%
State Totals	**4.6%**	**7.5%**	**9.3%**	**5.8%**	**5.7%**

Table H: Domestic Travel-Generated Employment by County, 2014-2018

Employment (in thousands)

County	2014	2015	2016	2017	2018
Barnstable	8.8	9.0	9.4	9.4	9.6
Berkshire	3.5	3.7	3.7	3.9	4.0
Bristol	3.1	3.1	3.2	3.2	3.3
Dukes	1.2	1.3	1.3	1.3	1.3
Essex	6.7	6.7	6.9	7.1	7.3
Franklin	0.4	0.4	0.4	0.4	0.4
Hampden	3.2	3.2	3.3	3.4	3.5
Hampshire	0.9	0.9	0.9	0.9	1.0
Middlesex	20.6	21.0	21.7	22.2	22.7
Nantucket	1.0	1.1	1.1	1.1	1.1
Norfolk	10.0	10.3	10.6	10.9	11.3
Plymouth	3.8	3.9	4.0	4.1	4.2
Suffolk	44.7	45.9	47.4	48.3	49.6
Worcester	5.5	5.6	5.8	6.0	6.1
State Totals	**113.3**	**116.0**	**119.7**	**122.2**	**125.4**

Percentage Change Over Previous Year

County	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Barnstable	0.0%	2.8%	4.3%	-0.7%	2.3%
Berkshire	1.6%	3.4%	2.1%	5.9%	1.0%
Bristol	-0.5%	0.9%	3.7%	0.5%	2.4%
Dukes	2.4%	3.6%	0.8%	-1.5%	2.0%
Essex	3.6%	0.7%	3.2%	2.9%	2.7%
Franklin	2.2%	-0.9%	1.9%	3.4%	2.0%
Hampden	-0.5%	0.0%	3.0%	4.0%	4.0%
Hampshire	-0.8%	1.3%	3.2%	3.2%	2.7%
Middlesex	2.7%	1.9%	3.1%	2.5%	2.4%
Nantucket	0.0%	2.3%	1.7%	-0.7%	2.1%
Norfolk	1.8%	2.9%	3.1%	2.5%	3.8%
Plymouth	2.4%	3.9%	2.6%	2.3%	2.4%
Suffolk	2.4%	2.9%	3.2%	1.8%	2.7%
Worcester	0.1%	2.5%	3.4%	3.2%	2.7%
State Totals	**1.9%**	**2.4%**	**3.2%**	**2.1%**	**2.7%**

Table I: Domestic Travel-Generated Tax Revenue for Massachusetts State Government by County, 2014-2018

Tax Revenue for State Government ($ Millions)

County	2014	2015	2016	2017	2018
Barnstable	$40.3	$44.3	$47.4	$47.8	$50.2
Berkshire	18.8	21.0	22.1	23.8	24.2
Bristol	23.9	25.6	27.1	27.8	29.2
Dukes	5.0	5.5	5.7	5.7	6.0
Essex	44.7	47.5	50.3	52.8	55.6
Franklin	3.3	3.4	3.5	3.7	3.8
Hampden	26.5	27.7	29.3	31.0	33.3
Hampshire	6.6	7.0	7.5	7.9	8.3
Middlesex	133.2	144.3	152.5	159.1	167.8
Nantucket	4.8	5.3	5.4	5.5	5.8
Norfolk	55.3	60.4	63.8	66.7	70.8
Plymouth	26.9	29.7	31.2	32.5	34.1
Suffolk	213.6	231.9	244.5	253.5	266.8
Worcester	42.9	46.6	49.4	52.1	54.9
State Totals	**$645.8**	**$700.0**	**$739.7**	**$769.9**	**$810.8**

Percentage Change Over Previous Year

County	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Barnstable	2.6%	9.9%	7.1%	0.9%	5.0%
Berkshire	5.2%	11.4%	5.2%	7.8%	1.7%
Bristol	1.6%	6.7%	6.2%	2.4%	5.1%
Dukes	4.1%	10.2%	4.3%	0.2%	4.1%
Essex	6.4%	6.2%	5.8%	5.0%	5.4%
Franklin	5.1%	2.8%	3.4%	5.3%	3.6%
Hampden	1.7%	4.5%	6.0%	5.9%	7.1%
Hampshire	1.6%	6.9%	6.4%	5.0%	5.4%
Middlesex	5.9%	8.3%	5.7%	4.3%	5.5%
Nantucket	4.4%	8.5%	3.7%	1.1%	4.4%
Norfolk	5.6%	9.3%	5.5%	4.6%	6.1%
Plymouth	4.8%	10.4%	4.8%	4.1%	5.1%
Suffolk	7.0%	8.5%	5.5%	3.7%	5.2%
Worcester	3.7%	8.6%	6.1%	5.4%	5.4%
State Totals	**5.4%**	**8.4%**	**5.7%**	**4.1%**	**5.3%**

Table J: Domestic Travel-Generated Tax Revenue for Local Governments in Massachusetts by County, 2014-2018

Tax Revenue for Local Governments ($ Millions)

County	2014	2015	2016	2017	2018
Barnstable	$57.5	$61.4	$64.7	$65.8	$69.3
Berkshire	11.1	12.0	12.4	13.5	13.8
Bristol	9.1	9.5	9.9	10.2	10.8
Dukes	7.6	8.2	8.4	8.5	8.9
Essex	21.9	22.6	23.5	24.9	26.3
Franklin	2.0	2.0	2.0	2.1	2.2
Hampden	9.9	10.1	10.5	11.2	12.1
Hampshire	3.4	3.5	3.7	3.9	4.1
Middlesex	65.3	68.7	71.5	75.1	79.5
Nantucket	5.6	6.0	6.1	6.2	6.5
Norfolk	23.2	24.6	25.6	27.0	28.7
Plymouth	25.9	27.8	28.7	30.1	31.8
Suffolk	154.9	163.4	169.6	177.1	187.0
Worcester	18.7	19.7	20.6	21.8	23.1
State Totals	**$416.1**	**$439.4**	**$457.1**	**$477.4**	**$503.8**

Percentage Change Over Previous Year

County	2014/2013	2015/2014	2016/2015	2017/2016	2018/2017
Barnstable	2.6%	6.8%	5.4%	1.7%	5.3%
Berkshire	5.3%	8.3%	3.5%	8.6%	2.0%
Bristol	2.4%	3.7%	4.5%	3.1%	5.4%
Dukes	3.9%	7.1%	2.7%	1.0%	4.5%
Essex	4.4%	3.2%	4.2%	5.8%	5.7%
Franklin	4.5%	-0.1%	1.8%	6.1%	3.9%
Hampden	2.0%	1.6%	4.3%	6.7%	7.5%
Hampshire	2.1%	3.8%	4.8%	5.8%	5.8%
Middlesex	4.2%	5.3%	4.0%	5.1%	5.8%
Nantucket	3.6%	5.4%	2.1%	1.8%	4.7%
Norfolk	4.4%	6.3%	3.8%	5.4%	6.5%
Plymouth	3.3%	7.3%	3.2%	4.9%	5.4%
Suffolk	7.4%	5.5%	3.8%	4.4%	5.6%
Worcester	4.2%	5.5%	4.5%	6.2%	5.8%
State Totals	**5.0%**	**5.6%**	**4.0%**	**4.4%**	**5.5%**

Table K: Economic Impact of Domestic Travel on Massachusetts 15 RTCs, 2018

Region	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Greater Boston	$12,142.8	$2,714.3	69.1	$402.8	$246.1
Greater Merrimack Valley	1,132.0	322.3	8.9	66.0	31.5
Metro West	976.2	270.3	7.5	55.1	25.1
Johnny Appleseed	132.2	29.3	0.9	7.2	3.2
Central Massachusetts	552.3	109.7	3.3	29.2	12.4
Cape Cod (Barnstable County)	1,122.1	309.4	9.6	50.2	69.3
Berkshires (Berkshire County)	467.9	124.5	4.0	24.2	13.8
Southeastern MA (Bristol County)	533.4	116.3	3.3	29.2	10.8
Martha's Vineyard (Duke's County)	150.5	39.8	1.3	6.0	8.9
North of Boston (Essex County)	1,008.4	246.8	7.3	55.6	26.3
Franklin County (Franklin County)	66.5	13.1	0.4	3.8	2.2
Greater Springfield (Hampden County)	578.2	138.9	3.5	33.3	12.1
Hampshire County (Hampshire County)	148.5	34.0	1.0	8.3	4.1
Nantucket Chamber (Nantucket County)	181.3	41.7	1.1	5.8	6.5
Plymouth Chamber (Plymouth County)	671.4	142.2	4.2	34.1	31.8
	-	-	-	-	-
Five Regions' Total	**$14,935.6**	**$3,445.9**	**89.7**	**$560.3**	**$318.2**
Statewide Total	**$19,863.8**	**$4,652.6**	**125.4**	**$810.8**	**$503.8**

Table L: Economic Impact of Domestic Travel on Massachusetts 15 RTCs, 2017

Region	Expenditures ($ Millions)	Payroll ($ Millions)	Employment (Thousands)	State Tax Receipts ($ Millions)	Local Tax Receipts ($ Millions)
Greater Boston	$11,442.9	$2,566.7	67.2	$382.2	$232.8
Greater Merrimack Valley	1,065.5	304.5	8.7	62.6	29.8
Metro West	917.7	255.1	7.3	52.2	23.7
Johnny Appleseed	124.5	27.7	0.8	6.8	3.0
Central Massachusetts	520.1	103.7	3.2	27.7	11.7
Cape Cod (Barnstable County)	1,060.9	293.6	9.4	47.8	65.8
Berkshires (Berkshire County)	456.6	121.7	3.9	23.8	13.5
Southeastern MA (Bristol County)	503.8	110.3	3.2	27.8	10.2
Martha's Vineyard (Duke's County)	143.5	38.1	1.3	5.7	8.5
North of Boston (Essex County)	949.9	233.4	7.1	52.8	24.9
Franklin County (Franklin County)	63.7	12.6	0.4	3.7	2.1
Greater Springfield (Hampden County)	535.7	129.1	3.4	31.0	11.2
Hampshire County (Hampshire County)	139.8	32.2	0.9	7.9	3.9
Nantucket Chamber (Nantucket County)	172.4	39.8	1.1	5.5	6.2
Plymouth Chamber (Plymouth County)	634.1	134.8	4.1	32.5	30.1
Five Regions' Total	**$14,070.7**	**$3,257.6**	**$87.3**	**$531.4**	**$301.0**
Statewide Total	**$18,731.1**	**$4,403.3**	**$122.2**	**$769.9**	**$477.4**

APPENDICES

Appendix A: Travel Economic Impact Model

Introduction

The Travel Economic Impact Model (TEIM) was developed by the research department at the U.S. Travel Association to provide annual estimates of the impact of the travel activity of U.S. residents on national, state and county economies in this country. It is a disaggregated model comprised of a variety of travel categories (described in Appendix B: Glossary of Terms). The TEIM estimates travel expenditures and the resulting business receipts, employment, personal income and tax receipts generated by these expenditures.

The TEIM has the capability of estimating the economic impact of various types of travel, such as business and vacation, by transport mode and type of accommodations used, and other trip and traveler characteristics. The County Impact Component of the TEIM allows estimates of the economic impact of travel at the county and city level.

Definition of Terms

There is no commonly accepted definition of travel in use at this time. For the purposes of the estimates herein, *travel* is defined as activities associated with all overnight and day trips to places 50 miles away or more, one way, from the traveler's origin and any overnight trips away from home in paid accommodations.

The word *tourism* is avoided in this report because of its vague meaning. Some define tourism as all travel away from home while others use the dictionary definition that limits tourism to personal or pleasure travel.

The *travel industry*, as used herein, refers to the collection of 18 types of businesses that provide goods and services to the traveler or potential traveler at the retail level (see Glossary of Terms). With the exception of Amtrak and second home ownership and rental, these business types are defined by the Office of Management and Budget in the 1997 North American Industry Classification System (NAICS) and well as in its predecessor, the 1987 Standard Industrial Classification System (SIC). In each case, the relevant NAICS and SIC codes are included.

Travel *expenditure* is assumed to take place whenever traveler exchanges money for an activity considered part of his/her trip. Total travel expenditures are separated into related categories representing traveler purchases of goods and services at the retail level. One category, travel agents, receives no travel expenditures as these purchases are allocated to the category (i.e. air transportation) actually providing the final good or service to the traveler. Travel expenditures are allocated among states by simulating where the exchange of money for goods or service actually took place. By their nature, some travel expenditures are assumed to occur at the traveler's origin, some at his/her destination, and some en route.

Economic impact is represented by measures of spending, employment, payroll, business receipts and tax revenues generated by traveler spending. *Payroll* includes all forms of compensation, such as salaries, wages, commissions, bonuses, vacation allowances, sick leave pay and the value of payments in kind paid during the year to all employees. Payroll is reported before deductions for social security, income tax insurance, union dues, etc. This definition follows that used by the U.S. Census Bureau in the quinquennial Census of Service Industries.

Employment represents the number of jobs generated by traveler spending, both full and part-time. As such, it is consistent with the U.S. Department of Labor series on nonagricultural payroll employment. *Tax revenues* include corporate income, individual income, sales and gross receipts, and excise taxes by level

of government. *Business receipts* reflect travel expenditures less the sales and excise taxes imposed on those expenditures.

Description of the Model

Estimates of Travel Expenditures

Total travel expenditures includes spending by travelers on goods and services during their trips, such as lodging, transportation, meals, entertainment, retail shopping. The TEIM covers 18 categories of activities. Generally, the TEIM combines the activity levels for trips to places within the United States with the appropriate average costs of each unit of travel activity, (e.g., cost per mile by mode of transport, cost per night by type of accommodation), to produce estimates of the total amount spent on each of 18 categories of travel related goods and services by state. For example, the number of nights spent by travel parties in hotels in Massachusetts is multiplied by the average cost per night per travel party of staying in a hotel in the state to obtain the estimate of traveler expenditures for hotel accommodations. The estimates derived through the cost factor method are also validated through three additional methods: Household travel spending ratio method: the ratio of out of town spending to total household spending; Trip expenditure ratio method: the ratio of each travel spending category in a trip to that trip's total expenditures; and economic and business statistics validations.

The data on domestic travel activity levels (e.g., number of miles traveled by mode of transportation, the number of nights spent away from home by type of accommodation) are based on national travel surveys conducted by the U.S. Travel Association, The Bureau of Labor Statistics' Survey of Consumer Expenditures, Smith Travel Research's Hotel and Motel Survey, etc. Average cost data are purchased and collected from various organizations and government agencies. Total sales, revenue and other data collected from state, local and federal governments and other organizations are employed to compare, adjust and update the spending database of TEIM, as well as linking spending to other impact components.

The international travel expenditure estimates are based on Tourism Industries' (OTTI) Survey of International Air Travelers and data provided to OTTI from Canada and Mexico. Other estimates of the economic impact of international visitors to the U.S. are generated by TEIM by incorporating the estimated international traveler expenditures with the data series utilized to produce the domestic estimates.

Estimates of Business Receipts, Payroll and Employment

The Economic Impact Component of the TEIM estimates travel generated business receipts, employment, and payroll. Basically, the 18 travel categories are associated with a type of travel-related business. For example, traveler spending on commercial lodging in a state is related to the business receipts, employment and payroll of hotels, motels and motor hotels (SIC 701; NAICS 7211) in the state. It is assumed that travel spending in each category, less sales and excise taxes, equals business receipts for the related business type as defined by the U.S. Census Bureau.

It is assumed that each job in a specific type of business in a state is supported by some amount of business receipts and that each dollar of wages and salaries is similarly supported by some dollar volume of business receipts. The ratios of employment to business receipts are computed for each industry in each state. These ratios are then multiplied by the total amount of business receipts generated by traveler spending in a particular type of business to obtain the measures of travel generated employment and payroll of each type of business in each state. For example, the ratio of employees to business receipts in-state commercial lodging establishments is multiplied by travel generated business receipts of these establishments to obtain traveler generated employment in commercial lodging. A similar process is used for the payroll estimates. The total sales, payroll and employment data of each travel related industry (by SIC and NAICS) are

provided by and collected from state, local and federal governments, such as the Bureau of Labor Statistics, the Bureau of Economic Analysis, Census Bureau and The Bureau of Transportation Statistics.

Estimates of Tax Revenues

The Fiscal Impact Component of the TEIM is used to estimate traveler generated tax revenues of federal, state and local governments. The yield of each type of tax is related to the best measure of the relevant tax base available for each state consistent with the output of the Economic Impact Component. The ratios of yield to base for each type of tax in each state are then applied to the appropriate primary level output to obtain estimates of tax receipts generated by travel. For example, the ratio of Massachusetts State personal income tax collections to payroll in the state is applied to total travel generated payroll to obtain the estimate of state personal income tax receipts attributable to traveler spending in Massachusetts.

Estimates for Counties and Local Areas

Local area travel impact estimates are derived by distributing the state estimates to the area using proper proportions of each related category in the area. The proportions of a local area are calculated based on a set of data collected from federal, state and local governments and private organizations. The data can be gathered at the zip-code level. Consumer survey data is not used in local impact estimates due to the issue of small sample size.

The data used to estimate the local area shares includes sales, employment, payroll and taxes for all travel-related industry categories. Local data provided by states such as sales/tax receipts, employment and wages, attraction attendances, etc. are critical inputs. County and local sales, establishments, employment and payroll data derived from Economic Census, County Business Patterns and the Quarterly Census of Employment and Wages (QCEW) are also used in the model.

Limitations of the Study

This study is designed to indicate the impact of U.S. traveler expenditures on employment, payroll, business receipts and tax revenue in each of the states. These impact estimates reflect the limitations inherent in the definition of travel expenditures. Two important classes of travel-related expenses have not been estimated due to various reasons. Consumers purchase certain goods and services in anticipation of a trip away from home. These include sports equipment (tennis racquet, skis, scuba gear, etc.), travel books and guides, and services such as language lessons and lessons for participatory sports (tennis, skiing, underwater diving, etc.). The magnitude of these purchases in preparation for a trip cannot be quantified due to lack of sound, relevant data.

The second type of spending not covered due to lack of sufficient data is the purchase of major consumer durables generally related to outdoor recreation on trips. Further research is required in this area to determine to what extent pre-trip spending on consumer durable products can justifiably be included within a travel economic impact study.

Estimates of Travel Expenditure

- Travel spending in category *i* = level of the travel activity *i* *per unit cost of the activity *i*
  Example: Spending on hotel rooms = nights stayed in hotel *average hotel room rate
- Total Travel Spending = ∑ Travel Spending in category *i , i=1,2,3.....18*

Estimates of Business Receipts, Payroll and Employment

For Category *i*

- Travel business receipts = estimated travel spending – (sales and excise taxes)
- Travel-generated payroll
  = Total payroll of the industry / total sales of the industry *travel business receipts
- Travel-generated employment
  = Total employment of the industry / total payroll of the industry *travel-generated payroll
- Total business receipts, payroll and employment are equal to the sum of all categories of each measurement respectively.

Estimates of Tax Revenues

The types of tax revenue included in the estimations:

- Retail sales and excise taxes
  For each travel related industry:
  Sales tax or excise tax revenue =
  (tax rate (federal, state and local)) *estimated travel spending of the category
- Individual income tax
  For each travel related industry:
  Travel-generated personal income tax revenue =
  (total state PI tax collection / total state PI) *estimated travel-generated personal income
- Corporate income tax and property tax are estimated in the same way.
- Total tax receipts for the federal, state and local government are equal to the sum of all kinds of taxes of all industries.

Estimates of Travel Economic Impact of counties (CTEIM)

- County share = measurement of the county / sum of all counties for the same measurement.
- Travel Impact on the county = county share *the state total (estimated by TEIM).

Appendix B: Glossary of Terms – TEIM

Automobile Transportation Expenditure. This category includes a prorated share of the fixed costs of owning an automobile, truck, camper, or other recreational vehicles, such as insurance, license fees, tax, and depreciation costs. Also included are the variable costs of operating an automobile, truck, camper, or other recreational vehicles on a trip, such as gasoline, oil, tires and repairs. The costs of renting an automobile or other motor vehicle are included in this category as well.

Entertainment/Recreation Expenditure. Traveler spending on recreation facility user fees, admissions at amusement parks and attractions, attendance at nightclubs, movies, legitimate shows, sports events and other forms of entertainment and recreation while traveling.

Food Expenditure. Traveler spending in commercial eating facilities and grocery stores or carry-outs, as well as on food purchased for off-premise consumption.

Incidental Purchase Expenditure. Traveler spending on retail trade purchases including gifts for others, medicine, cosmetics, clothing, personal services, souvenirs and other items of this nature.

Lodging Expenditure. Traveler spending on hotels and motels, B&Bs, campgrounds and trailer parks, rental of vacation homes and other types of lodging.

Public Transportation Expenditures. This includes traveler spending on air, bus, rail and boat/ship transportation, and taxicab or limousine service between airports and central cities.

Travel-generated Tax Receipts. Those federal, state and local tax revenues attributable to travel in a defined area. For a given state locality, all or some of the taxes may apply. "Local" includes county, city or municipality, and township units of government actually collecting the receipts and not the level that may end up receiving it through intergovernmental transfers.

Federal. These receipts include corporate income taxes, individual income taxes, employment taxes, gasoline excise taxes and airline ticket taxes.

State. These receipts include corporate income taxes, individual income taxes, sales and gross receipts taxes and excise taxes.

Local. These include county and city receipts from individual and corporate income taxes, sales, excise and gross receipts taxes and property taxes.

Appendix C: Travel-Related Industry by NAICS

Travel Industry Categories: With the transition to NAICS, the U.S. Travel Association has adjusted its selection of the travel-related business types using the new NAICS codes and brought its travel economic research into conformity with NAICS. For measurement purposes, U.S. Travel Association's Travel Economic Impact Model tracks business activity in seven (7) major travel-related industry groups. The industry groups and subcategories used in the model are outlined below, followed by a detailed table of NAICS Codes. The share of travel in each of listed industries will depend on travel spending estimates for the related categories and are different from industries and areas.

Automobile Transportation: Gasoline service stations, passenger car rental, motor vehicle/parts dealers, automotive repairs and maintenance.

Entertainment/Recreation Industry: Entertainment, art and recreation industry.

Foodservice Industry: Eating and drinking places and grocery stores.

Retail Trade Industry: General merchandise group stores and miscellaneous retail stores, including gift and souvenir shops, and other retail stores.

Lodging Industry: This industry includes hotels, motels, and motor hotels, camps and trailer parks.

Public Transportation Industry: Air transportation, taxicab companies, interurban & rural bus transportation, railroad passenger transportation (Amtrak) and water passenger transportation. Also is the "dummy" industry of "other transportation."

Travel Arrangement Industry: This includes travel agencies, tour operators, and other travel arrangement & reservation services.

TRAVEL-RELATED INDUSTRY BY NAICS

Accommodations
7211 Traveler Accommodations
7212 Recreational Vehicle Parks & Campgrounds

Auto Transportation
532111 Passenger Car Rental
447 Gasoline Stations
4411 Automobile Dealers
4412 Other Motor Vehicle Dealers
4413 Automotive Parts, Accessories and Tire Stores
8111 Automotive Repair and Maintenance

Entertainment and Recreation
711 Performing Arts, Spectator Sports & Related Industries
712 Museums, Historical Sites & Similar Institutions
713 Amusement, Gambling & Recreation

Food
7221 Full service Restaurants
7222 Limited Service Eating Places
7224 Drinking Places
445 Food and Beverage stores

Public Transportation
481 Passenger Air Transportation
4881 Airport Support Activities
4821 Rail Transportation
4852 Interurban and Rural Bus Transportation
4853 Taxi & Limousine Services
485510 Charter Bus
483112 Deep Sea Passenger Transportation
483114 Coastal and Great Lakes Passenger Transportation
483212 Inland Water Passenger Transportation
487 Scenic & Sightseeing Transportation

Retail
451 Sporting Goods, Hobby, Book, and Music Stores
452 General Merchandise Stores
453 Miscellaneous Store Retailers
443 Electronics and Appliance Stores
444 Building Material and Garden Equipment and Supplies Dealers
446 Health and Personal Care Stores
448 Clothing and Clothing Accessories Stores

Travel Arrangement
5615 Travel Arrangement & Reservation Services (includes travel agencies and tour operators

Appendix D: Sources of Data

This appendix presents the sources of data used in this report.

Organizations

Airlines for America, (formerly known as Air Transport Association of America)
American Automobile Association
Amtrak
American Society of Travel Agents
Bureau of Census, U.S. Department of Commerce
Bureau of Economic Analysis, U.S. Department of Commerce
Bureau of Labor Statistics, U.S. Department of Labor
Bureau of Transportation Statistics, U.S. Department of Commerce
Federal Aviation Administration, U.S. Department of Transportation
Federal Highway Administration, U.S. Department of Transportation
National Park Service
Massachusetts Office of Travel and Tourism
Massachusetts Department of Revenue
Smith Travel Research
OTTI/International Trade Administration, U.S. Department of Commerce
U.S. Travel Association

Appendix E: RIMS II

REGIONAL INPUT-OUTPUT MODELING SYSTEM

A BRIEF DESCRIPTION

Regional Economic Analysis Division
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, D.C. 20230
(202) 523-0594

RIMS II

Many types of public sector and private sector decisions require an evaluation of probable regional effects. For example, federal requirements for environmental impact statements and the urban impact of federal policies necessitate regional impact analyses. A growing concern, therefore, about the effects of public and private decisions has created a demand for regional economic models.

As a result of this demand, economic impact models have been developed for many states and regions. These models vary considerably in terms of structure, reliability, sectoral and geographical detail, flexibility in application, and cost of development and use. In general, the models that provide the most reliable and industrially-detailed secondary impact estimates are the most expensive to construct, while the less costly models that can be used in numerous small-area studies often provide less accurate estimates.

In response to the growing need for improved techniques for regional impact analysis, the Regional Economic Analysis Division of the Bureau of Economic Analysis (BEA) developed the Regional Industrial Multiplier System (RIMS) in the mid-1970's. RIMS was designed to estimate input-output type multipliers for use in estimating the secondary regional impacts of public and private economic development policies. RIMS was capable of estimating multipliers for any region composed of one or more contiguous counties and for any of the 478 industrial sectors in the 1967 BEA national input-output (I-O) table. A significant improvement over the more summary measures often used in regional impact analysis, RIMS was capable of providing reliable multiplier estimates without the high cost of gathering survey data.

The Regional Input-Output Modeling System (RIMS II) is a major revision of RIMS. The basic differences between RIMS II and RIMS are the use of more recent national I-O tables (1987), the use of more detailed and more current data for regionalizing the national I-O tables, and greater flexibility in the derivation of regional impact estimates through the use of a matrix inversion technique that provides industrially-disaggregated impacts. RIMS II developmental research is focused currently on estimating regional transaction tables, and comparing RIMS II estimates of state-specific imports and exports with survey-based estimates from the Census Bureau's Commodity Transportation Survey. RIMS II is also being adapted to analyze the regional and industrial impacts of defense procurement.

RIMS II METHODOLOGY

In order to estimate impacts such as those presented above, RIMS II uses the BEA national I-O tables that show the input and output structure of 500 industries. Since firms in all national industries are not found in each region, some direct requirements that are not produced in a study region are identified, using Bureau of Economic Analysis (BEA) 4-digit Standard Industrial Classification (SIC) county earnings data. The earnings data are used as proxies for the industry-specific input and output data which are seldom available at the small-area level. Using the same earning data, the resulting regional I-O table then can be aggregated to the level of industrial detail appropriate for the impact study. More specifically, the RIMS II approach can be viewed as a three-step process. In the first step, the national I-O matrix is made region-specific by using corresponding 4-digit SIC location quotients (LQ's). The LQ's are used to estimate the extent to which requirements are supplied by firms within the region. For this purpose, RIMS II employs LQ's based on two types of data. According to this mixed- LQ Approch, BEA county personal income data, by place of residence, are used for the calculation of LQ's in the service sectors, while BEA earnings data, by place of work, are used for the LQ's in the nonservice sectors.
The second step involves estimations of the household row and the household column of the matrix. The household-row coefficients are estimated based on value- added gross-output ratios from the national I-O table and introduced into each industry's coefficient column. A household column is constructed, based on national consumption and savings rate data and national and regional tax rate data.

The last step in the RIMS II estimating procedure is to calculate the multipliers. Since it is most often necessary to trace the impact of changes in final demand on numerous individual directly-and indirectly-affected industries, RIMS II applications employ the Leontief inversion approach for obtaining multipliers. This inversion process produces output and earnings multipliers for all additionally affected industries.

ACCURACY OF RIMS II

Empirical test of the accuracy of RIMS II multipliers indicates that RIMS II yields estimates that are not substantially different from those generated by regional I-O models based on the costly gathering of survey data. For example, a comparison of 224 industry-specific multipliers from survey based tables for Illinois, Washington, and West Virginia indicate that the RIMS II average multipliers overestimate the average multipliers from the survey based tables by approximately 5 percent, and, for the majority of individual industry-specific multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show a statistically-similar distribution of affected industries.

ADVANTAGES OF RIMS II

There are numerous advantages to RIMS II. First, it is possible to provide estimates of economic impact without building a complete survey I-O model for each region under study, since RIMS II produces multipliers that are derived from secondary data sources. Second, the RIMS II multipliers are derived from a limited number of secondary data sources, thus eliminating the costs associated with the compilation of data from a wide variety of these sources. Third, because of the disaggregated sectoring plan employed by RIMS II, analysis may be performed at a detailed industrial level, thereby avoiding aggregation errors that often occur when different industries are combined. Fourth, the RIMS II multipliers are based on a consistent set of procedures across areas, thus making comparisons among areas more meaningful than would be the case if the results were obtained from incompatible impact models designed only for an individual area. Fifth, the multipliers can be updated to reflect the most recent local area earning and personal income data.

The industrial output and personal earnings impacts estimated by RIMS II can be crucial for estimating effects not directly specified by RIMS II itself. For example, the estimation of regional, fiscal, labor migration and environmental effects often depends on the estimation of the regional output and earnings impact of the initial stimulus. Since many of these important effects are often best analyzed on a case-by-case basis, one of the major advantages of using RIMS II is that valuable research resources can be spent on the analysis of these effects, rather than on the construction of an impact model. Therefore, when using RIMS II, a cost-effective impact study might devote most of its research budget to specifying initial impacts in industry specific detail, and analyzing the implications for other important aspects of regional economic activity of the RIMS II estimates impacts.

This overview briefly describes RIMS II multiplier, the multiplier estimation procedures, and some of the advantages and uses for RIMS II. For additional information, see “Regional Multipliers,” a user handbook for the Regional Input-Output Modeling System (RIMS II), third edition. This handbook is produced by the U.S. Department of Commerce and available from the U.S. Government Printing Office.